

wherein the coupling angle ( $\Theta$ ) varies by not more than 0. 1 °/cm along a line of said grating and wherein the absolute value of the deviation of the coupling angle on said waveguide plate, from a predefined desired value, does not exceed 0.5°.

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26. (AMENDED) A method for the simultaneous qualitative and/or quantitative determination of a multitude of analytes, with a component of the group of components formed by a sensor platform according to claim 18, wherein one or more liquid samples, to be analyzed for said one or more analytes, are brought into contact with the measurement areas on one of said components, excitation light is launched towards the measurement areas, and wherein at least one of (A) light emanating from the measurement areas and (B) optionally one or more luminescences from the measurement areas brought into contact with said sample or said samples, resulting from the binding of one or more analytes to the biological or biochemical or synthetic recognition elements immobilized in said measurement areas or resulting from the interaction between said analytes and said immobilized recognition elements, are measured, wherein said luminescences are generated in the near-field of the waveguiding layer.

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41.(AMENDED) The use of a component from the group of components formed by a sensor platform according to claim 18, and/or of a method according to claim 26, for quantitative and/or qualitative analyses for the determination of chemical, biochemical or biological analytes in screening methods in pharmaceutical research, combinatorial chemistry, clinical and preclinical development, for realtime binding studies and the determination of kinetic parameters in affinity screening and in research, for qualitative and quantitative

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